Panama, C.O. Erlanson, 1945

RECORD

50178

Manufactured by
U. S. Government Printing Office

1945

3/7 Received inoculations at U.S. Public Health Service Dispensary Typhus no. 1, Typhoid no. 1, Small Pox. The Small Pox inoculation took.

3/14 Received inoculations at U.S. Public Health Service Dispensary Typhus no. 2, Typhoid no. 2.

3/17 Met Ivan Johnston who also is going same place and will be there April and May.

3/19 Made application for passport. Went to Pentagon Bldg. and received Tetanus inoculation no. 1. The second and third shots should be at least 3 weeks apart. Received physical examination and typed for blood.

Expenses: 2 car fares .20
2 bus fares .20
Passport fee 1.00

3/20 On annual leave.

3/21 To Pentagon Bldg. to pick up exam. papers. These had been sent to Zivelli who will send them to Wetmore. Packed trunk and telescopic case at Smithsonian. Material packed as follows.

100 corrugated cardboards (Sm)	1 camera (Recomar) (PI)
150 driers (Sm)	5 doz. film (PI)
500 newsprint sheets (Sm)	1 Weston photometer (PI)
2 plant presses (Sm)	2 balls string (Sm)
1 collecting press (PI)	1 notebook (Sm)
1 machete (Sm)	1 compass (Sm)
2 flashlights (Sm)	200 halozone Tablets (Sm)
1 binocular (PI)	1 doz. pencils (Sm)
Waterproof paper (Sm)	1 pkg. napthalene flakes (Sm)
1 canteen (Sm)	1 pkg. flos of sulphur (Sm)

1 pocket microscope (P1)
1 magnifier illuminator (P1)
2 forceps (P1)
4 dissecting needles (P1)
1 oil can (P1)
1 scissors (P1)
1 telescopic suit case

1 metric ruler (P1)
1 pkg. lens paper (P1)
2 pocket lenses (P1)
1 hank sash cord (5m)
1 knapsack (P1)
1 locker trunk

Expenses 2 bus fares .20

3/22 Office - Beltsville.

3/23 U.S. Public Health Service where received Typhus no 3, Typhoid no. 3 and Yellow Fever inoculation.

3/24 On leave.

3/25 Sunday

3/26 Office.

3/27 Rec'd. $500.00 from Smithsonian for expenses. Bought $550.00 Am. Express checks. To Pentagon to pick up Tetanus & blood type paper.
Travelers checks $4.13
Bus fares 2 .20

3/28 Annual leave. Obtained passport.
Street car fares .20

3/31 Received letters of authority. Four travel requisitions nos. 51-3,493 - 51-3,496.
Tr. Req. 51-3,493. Wash. to Miami & return. $106.80.
on Eastern Airlines.
Tr. Req. 51-3,494. Miami to Balboa & return. $175.50.
on Pan-American Airlines.
Bus fares 2. .20.

4/1 Left Wash. Airport 12:30 P.M. enroute to Miami.
Taxi fare to Airport 1.50
Porter fee .25
Arrived Miami Airport 7:30 P.M.
Porter at Airport .25
Bus fare Airport to hotel .85
Porter at hotel .25
Room at Pittsburger Hotel, 3 days at 4.00. $ 12.00
Receipt no. 1.

4/2 Breakfast .60
Lunch 1.10
Supper 1.25

4/3 Breakfast .55
Lunch .85
Supper 1.40

4/4 Breakfast .60
Bus fare Hotel to Airport .85
Left Miami 7:00 A.M.
Arrived Balboa 2:00 P.M.
Porter at Airport .50
Taxi Airport to Hotel Internacional, Panama City 1.00
Hotel porter .25
Supper 1.30

4/5 Breakfast .90
Lunch 1.30
Hotel Porter .25
Hotel room 1 day at $ 6.00. Telephone calls .55
Total 6.55 (Receipt no. 2)
Left Mainland 3:00 P.M.
Arrived destination 7:00 P.M.

4/6 Friday.

Dicranopteris - clambers over barren slopes and bushes.

Trichomanes pinnatum - good indicator for gas diffusion.

Cyclopeltis - one of largest. Ravine bottoms.

Acrostichum aureum - common with Mangroves at Main Beach.

Johnston's Check-list

Sellaginellaceae

Selaginella diffusa
flagellata
huehuetenangensis

Schizaeaceae

Schizaea elegans

~~Dicranopteris~~

Dicranopteris pectinata

Gleicheniaceae

Lygodium venustum
radiatum

Anemia partinacaria

Marattiaceae

Danaea nodosa

Cyatheaceae

Alsophila rostrata

Hymenophyllaceae

Trichomanes pinnatum
diversifrons
punctatum

Polypodiaceae

Bolbitis nicotianaefolia
cladorhizans

Cyclopeltis semicordata

Tectaria incisa

Blechnum occidentale

Dictyoxiphium panamense

Acrostichum aureum

Elaphoglossum piloselloides
spp.

Pityrogramma - white farinaceous beneath.

Polypodiaceae

Polybotrya villosula
Ananthacorus angustifolius
Vittaria lineata
sp.
Pteridium
Pteris
Pityrogramma tartarea
Asplenium serratum
formosum
auritum
membranifolium
Polypodium percussum
occultum
xalapense
polypodioides
costaricense
pectinatum
kuhnii
Lindsaea horizontalis
Adiantum concinnum
phillipense
lucidum
obliquum
petiolatum
serrato-dentatum
villosum
decoratum
latifolium

Dyneriuum sagittatum - common cane grass.

Add - Sporobolus indicus, Naval Station
Pennisetum setosum
Cenchrus viridis

Polypodiaceae

Dryopteris effusa
ampla
patula
sprengelii
dentata
tristis
nicaraguensis

Gramineae

Arthrostylidium spinosum
Gynerium sagittatum
Pharus latifolius
Streptogyne crinita
Sporobolus ciliatus
Uniola pittieri
Andropogon bicorne
Trachypogon secundus
Pentarrhaphia scabra
Chloris radiata
Stenotaphrum secundatum
Setaria paniculifera
Lasiacis procerrima
ruscifolia
Olyra latifolia
Panicum trichoides
Rudgei
didiscum
pilosum
Paspalum microstachyum
multicaule

Scleria secans - common saw-grass; climber or clambers in shrubs.

Gramineae

Paspalum nutans
clavuliferum
plicatulum
Oplismenus burmanni
Aponopus aureus
centralis
capillaris

Cyperaceae

Cyperus ligularis
flavus
simplex
hermaphroditus
perax
Bulbostylis junciformis
Fimbristylis annuus
Kyllingia odorata
Dichromena ciliata
Rhynchospora cephalotes
micrantha
mexicana
Scleria interrupta
secans
pterota

Palmae

Cocos nucifera
Bactris

Add - Cyclanthus

Xanthosoma - banana-like leaves, heavy rhizome.

Philodendron - common climby. Fat ~~leaves~~ , elephant-like leaves

Monstrichardia - common arrowleaf in mangroves at Main Beach

Monstera - climbs on trees at Main Beach. leaves with holes

Bromelia - narrow, serrate leaves.
Aechmea - Main Beach with Mangroves. wild pineapple

Add Agave panamana.

Cyclanthaceae

Carludovica palmata

Araceae

Xanthosoma pilosa "Dumb cane"
Spathiphyllum fulvovirens
Philodendron hoffmannii
Rhodospathe forgetii
Montrichardia arborescens
Dieffenbachia
Monstera

Bromeliaceae

Bromelia karatas
Aechmea magdalenae
Vriesia sanguinolenta
Tillandsia

Amaryllidaceae

Hymenocallis littoralis (Pancratium littoralis)

Dioscoreaceae

Dioscorea polygonoides
sapendoides
sp.

Musaceae

Musa sapientum
Heliconia latispatha

Zingiberaceae

Costus villosocomus

Cannaceae

Canna lutea

Marantaceae

Calathea violacea

Peperomia - usually fleshy epiphytes like Piper.

Trema - coming in common along graded rds. about camps.

Cousapoa - common strangling "fig". Ovate leaves, light coloured beneath.

Ficus popenoei - tawny pubescent twigs
" crassiuscula - big tree near Supply Hdqtrs.

Aristolochia
Struthanthus - parasitic in trees.

Xylopia frutescens - parasol like tree - lg. branches look like pinnate leaves

Piperaceae

Peperomia pellucida
sp.
Piper san-josecanum
subtrinerve
palcifolium

Ulmaceae

Trema micranthia

Moraceae

Cecropia arachnoidea
Coussapoa panamensis
~~Ficus~~ Ficus henslcyana
williamsii
urbanicana
popenoi
crassiuscula
radula

Proteaceae

Roupala — Small tree, skunk-like odor, seedling trees pinnate + toothed
Later leaves entire, simple, like lilac

Loranthaceae

Struthanthus orbicularis

Phytolaccaceae

Phytolacca rivinioides

Polygonaceae

Coccoloba

Anonaceae

Xylopia aromatica (X. macrantlera)
frutescens
Anona spraguei

Add Licania platypus

Add Inga spuria + others? rachis winged

Pithecellobium - "Coralillo"

Caesalpinia - common tree - East Rd. - Loop Rd.

Carria - large yellow flw. - 2 pr. leaflets dorsal to gyllus

Mora - "Alcornoque" 2 large leaflets

Prioria - fr. on beach. No plants found.

Bauhinia - "Monkey ladders". Lvs. silky beneath.

Andira - pinnate leaved tree - common

Swartzia - orange follicles - small tree

Dalbergia - Stems act as tendrils. Beaches. Flw. small white, sweet

Lauraceae

Ocotea rubrinervis
Nectandra gentlei (red petd.) ✓
sp. (blue petd.) ✓

Rosaceae

Hirtella racemosa (small leaves) ✓
americana (larger leaves - more pubescent) larger smaller tree ✓
Chrysobalanus icaco ✓

Connaraceae

Rourea glabra (glabrous) Playa Grande Vine ✓
Connarus panamensis rupicent C ✓
Cnestidium rufescens " C ✓

Leguminosae

Mimosa pudica
Entada scandens
Calliandra ?
Pithecellobium glabrum ✓
Caesalpinia eriostachya tree ✓
microphylla thick clambering thorny ✓
crista Vine, thorny, Playa Grande ✓
Cassia fruticosa ✓
diphylla ✓
Mora megistosperma
Prioria copaifera ✓
Bauhinia
Crotalaria pilosa
Desmodium angustifolium ✓
Andira inermis ✓
Swartzia simplex (Tounatea) ✓
Dalbergia brownei ✓

Add- Eriosema

Mucuna andreana - whitish flw in hanging long peduncles. Fl. 4/10

" sloanei - yellow flw., short peduncles, Beach, mouth of Matto Pueco

Clitoria - shrubby, white flws with purplish lines on standard, slender pod with long beak.

Dioclea - heavy coarse woody vines in thickets - purple flws. - very large pods.

Tetragastris - pods get reddish - open scarlet

Trichilia - rather rare shrub

Tetrapteris - common liana

Leguminosae

Lonchocarpus latifolius — Main Beach
Mucuna andreana
" sloanei
Galactia striata
Clitoria rubiginosa
Dioclea aff. guianensis
" reflexa

Rutaceae

Zanthoxylum
Citrus aurantium

Burseraceae

Tetragastris panamensis
Bursera simaruba
Protium

Meliaceae

Cedrela fissilis
Trichilia hirta
Guarea pauva
sp.

Malpighiaceae

Byrsonima crassifolia
Bunchosia sp.
Stigmaphyllum ellipticum ?
Banisteria sp.
Tetrapteris discolor
glabrifolium

Polygalaceae

Polygala longicaulis
brizoides

Add Omphalea diandra - fr. like orange or sea urchin. Beach.

Add - Serjania

Allophyllus - stinkets along loop rd -

Bourreria

Cissus - prob. rhombifolia

Polygalaceae

Securidaca coriacea · common ✓

Euphorbiaceae — peltate scales

Euphorbia hyssopifolia

Phyllanthus

Dalechampia scandens ✓

Cnidoscolus urens

Pera arborea — twigs short-bumpy appearance at leaves ✓

Mabea occidentalis

Hippomane mancinella

Anacardiaceae

Spondias mombin — common - yellow fr.

purpurea

Mangifera indica

Anacardium excelsum

Sapindaceae

Cupania pulvida

Allophylus occidentalis ✓

Celastraceae

Elaeodendron ✓

Hippocrateaceae

Elachyptera floribunda

Rhamnaceae

Gouania ~~sp.~~ polygama — hairy 9 lobbins — fragrant V. ✓

Aquifoliaceae

Ilex guoyannensis ✓

Vitaceae

Cissus sicyoides — red flrs. ✓

sicyoides — yellow flrs. ✓

Vitis tiliaefolia

Apeiba - sea urchin like fits

Luehea - fits 5-angled. L. candida big pod. leaves brown underneath

L. seemannii - small pod.

Hibiscus - on beaches - lvs. white underneath.

Add - Abutilon crispa

Sida rhombifolia

Guazuma - tree, leaf like elm., fit. woody covered with pimples.

Add: Davilla rugosa? sepals glabrous? between 8C + 8b.

Add Marcgraviaceae fit. Ochnaceae

Souroubea pilophera

maybe add Rheedia

Marila

Tiliaceae

Apeiba tibourbou ✓
Luehea candida
seemannii

Malvaceae

Hibiscus tiliaceus. ✓

Bombacaceae

Ochroma lagopus
Bombax ceiba
sessilis

Sterculiaceae

Guazuma ulmifolia ✓
Waltheria americana ✓

Dilleniaceae

Davilla lucida ✓
Tetracera oblongata
volubilis
Curatella americana

Ochnaceae

Ouratea wrightii ✓
Sauvagesia tenella
pulchella

Theaceae

Pelliciera rhizophorae ✓
Ternstroemia seemannii ✓

Hypericaceae

Vismia ferruginea ✓
Clusia minor ✓

Cochlospermaceae

Cochlospermum vitifolium

Casearia - clusters of berries or pedicels in axils of leaves.

Xylosma has thorns like Gleditsia - shrub. Willow like leaf.

Prob. add Combretum punctulatum

" farinosum? bluff near Rock Crusher

Flacourtiaceae

Hasseltia floribunda
Zuelania guidonia — Common T.
Casearia sylvestris
javitensis
Xylosma intermedia

Passifloraceae

Passiflora

Caricaceae

Carica papaya

Begoniaceae

Begonia pilipes
plebeja

Cactaceae

Acanthocereus pentagonus ?? — Prot. 4 spp.
Hylocereus monacanthus ?? — altogether 2 epiphytes

Lecythidaceae

Gustavia superba

Rhizophoraceae

Cassipourea podantha
Rhizophora mangle

Combretaceae

Conocarpus erecta
Laguncularia racemosa
Terminalia catappa

Myrtaceae

Psidium molle
sartorianum
Calycolpus warewiczianus — fr. like rose

Add Miconia argentea - big tree.

" completens ?

Myrtaceae

Eugenia banghamii tawny velvety ✓

sp.

Melastomaceae

Schwackaea cuphaeoides annual

Miconia laceia

minutiflora

Clidemia rubra

hirta

Leandra mexicana

Conostegia speciosa

Araliaceae

Didymopanax morototoni common giant T.

Myrsinaceae

Rapanea pellucido-punctata

Ardisia revoluta ball bearing like fruits.

Sapotaceae

Pouteria campechiana

Achras (Manilkara) Nispero

Loganiaceae

Spigelia anthelmia

Gentianaceae

Curtia tenella tiny plant like Stellaria. Bald Hill.

Coutoubea spicata long spike orange flrs. Upps

Schulteria guianensis

Saiphaimos (2 spp. (blue) (blue) orange) saprophytes
pale stems. Mexico Forest. also.
Orange one branched.

T. grandiflora. Tree with cedrela & Lantana, lactiferous, deciduous
pod with 2 carpels with orange placenta. Yellow flrs. thin soil

Add Marsdenia

Add Tournefortia bicolor

Add Hyptis suaveolens

Apocynaceae

Tabernaemontana grandiflora T ✓
Plumeria rubra forma acutifolia ✓ ✓
Pellaeites isthmicus ✓
Mandevilla subsagittatum ✓
Prestonia portobellensis ✓

Asclepiadaceae

Blepharodon mucronulatum
Funastrum reflexum

Convolvulaceae

Jacquemontia tamnifolia annual
Evolvulus alsinoides
Ipomoea minutiflora tiny orange flw. - mata-latex ✓
pes-caprae

Boraginaceae

Cordia alliodora
panamensis ✓
bicolor ✓
ferruginea

Verbenaceae

Callicarpa acuminata ✓
Aegiphila laeta
Citharexylum caudatum pendant spikes of red berries, Naval Sta. ✓

Labiatae

Hyptis lantanifolia

Solanaceae

Cestrum nocturnum
Solanum scabrum ✓
extensum ✓

Add Capparis byflora bicolor - Naval Sta.

Add: Cydista aequinoctialis (purple flr, calyx glands, horned tendril)

Rubiaceae - Dries but. red.
Callichlamys - big yellow flr. - large calyx

Kohleria - velvety fire-cracker flrs.

Bignonia - epiphytic shrub or vine
Tussacia - like Primula - yellow - under rock.

Add Acanthaceae:
Elytraria squamosum - spikes like sedge.
Tetramerium hispidum ?, Naval Sta.
Trichanthera gigantea - small tree

Add: Macronema

Chiococca - fr. orbicular, flattened, white, juicy.

Scrophulariaceae

Buchnera pusilla

Bignoniaceae

Tabebuia palustris — shrub - 3 foliolate l.o.

pentaphylla — common thicket

Enallagma latifolia — shrub - calabash fr.

Crescentia cujete

Amphilophium paniculatum — lflts. paired cordate

Pithyanocydia corymbosa — lflts. paired, rounded base

Anemopaegma orbiculatum — lflts. 3–5, pod wide as long.

Arrabidaea chica

Callichlamys latifolia — Short cut

Jacaranda copaia — junction South & Hardwoods.

Tecoma stans — beaches.

Gesneriaceae

Kohleria tubiflora — main track - rocks, cor. red. tub.

Codonanthe confusa — on ant nests, glabrous.

Drymonia spectabilis

Tussacia friedrichsthaliana

Diastema epigynum — rosette, fine white hairs

Rubiaceae

Isertia haenkeana — about 12 ft. big leaves. spectacular red-orange flo. just coming out

Palicourea guianensis

Psychotria undata

carthagenensis

patens

involucrata

Amaioua corymbosa — common under tree in Marina

Chiococca alba — common vine

Chomelia spinosa

Add

W

Erigeron ? bonariensis

Tridax procumbens - Naval Sta -

Neurolaena lobata

Eh Erechtites

Rubiaceae

Gonzalagunia panamensis
Hamelia nodosa
Alibertia edulis
Geophila herbacea
Mitracarpus hirtus
Borreria latifolia coarse mat Bald Hill
" pumilio annual " "
" ocymoides " "

Cucurbitaceae

Melothria trilobata
" guadalupensis

Compositae

Spiracantha cornifolia East pt.
Mikania micrantha
Wedelia trilobata Shows here are entire leaved at base by Lobudon ascending stems.
Vernonia canescens
Calea prunifolia
Eclipta alba
Pectis elongata

4/6 – 4/13 With Johnston visiting various parts of area to become familiar with dominant forms of vegetation.
Trichomanes pinnatum - good indicator for diffusion of gas.

1. Leaves compound
2. Leaves palmate
3. Trees
4. Leaves alternate
5. Leaves long petioled. — Didymopanax
5. Leaves short petioled
6. Spines on trunk — Bombax ciiba
6. No spines on trunk. — Bombax tessilis
4. Leaves opposite, flo. rose — Tabebuia
3. Vine — Anemopaegma
2. Leaves pinnate
7. Leaves more than once pinnate.
8. Vines
9. Fit. breaking in joints. — Entada
9. Fit. otherwise.
10. Stems hispid. — Caesalpinia
10. Stems smooth, fit. winged — Serjania
8. Trees or shrubs
11. Flo. purple, tree — Jacaranda
11. Flo. yellow or red, shrub — Caesalpinia Poinciana
7. Leaves once pinnate.
12. Leaves even pinnate.
13. Leaves opposite
14. Stems striate, lvs. lepidote beneath. Vine — Amphilophium
14. Stems not striate. Vines.
15. Leaflets large, shiny, calyx spathe-like. — Phryganocydia
15. Leaflets small, terminal tendril; flo. small, pink. — Arabidaea
13. Leaves alternate

16. Vine. — Bauhinia
16. Shrubs or trees.
17. Leaflets wavy, pods red, curled. — Pithecollobium
17. Leaflets not wavy.
18. Trees.
19. Near beaches, legume, lflts. fold on each other. — Mora
19. Velvety stems — Cupania
19. Leaflets 8-20, fr. globose — Guarea
18. Shrub; flrs. yellow. — Cassia
12. Leaves odd pinnate.
20. Vines
21. Herbaceous

Mimosa
Calliandra
Crotalaria
Desmodium
Eriosema
Galactia
Clitoria
Vigna
Mucuna

Cissus - alt., 3-foliate; flat inflor. with blue black berries & red or green branches

21. Woody.
22. Leaves opposite
23. Leaflets 3, small, lvs. dry crimson — Arrabidaea
23. Leaflets more than 3. — Tecoma
22. Leaves alternate.
24. Leaves supra pubescent.
25. Leaflets 3. — Connarus
25. Leaflets more than 3. — Cnestidium

24. Leaves glabrous or pubescent
26. Leaflets 3, pubescent beneath. — Diocles
26 Leaflets 5, glabrous — Rourea
20. Shrubs and trees.
27. Thorny
28. Rachis with prickles, trunks spined. — Zanthoxylum
28. Rachis winged, 1 leaflet. — Citrus
27. Not thorny
29. Rachis winged — Inga
29. Rachis not winged
30. Fruit a capsule.
31. Shrubs.
32. Branches tendril-like, leaflet 1. — Dalbergia
32. Branches not tendril-like, leaflets 3. — Allophyllus
31. Trees
33. Seeds winged, rocky places; lvs. densely pub. beneath. — Cedrela
33. Seeds not winged
34. Bark peeling, brown — Bursera
34. Bark not peeling
35. Leaves toothed, leaves glabrous, yellow berries. — Roupala
35. Leaves hairy — Trichilia
30. Fruit a drupe.
36. Leaflets wavy, drooping, long rain tips, spicy — Protium
36. Leaflets not drooping. spicy
37. Leaflets long petioled, fit. red inside, top-shaped — Tetragastris
37. Leaflets short petioled.
38. Trunk furrowed. — Spondias
38. Trunk smooth, legume. — Andira.

1. Leaves simple.
39. Woody plants
40. Leaves opposite.
41. Vines.

Struthanthus - Parasite, lvs round-ovate, fleshy

Stigmaphyllum - malpigh. hairs

Banisteria - malpigh. hairs, light beneath, rufescent at tips of branches.

Tetrapteris - malpigh hairs.

Elachyptera - branches act as tendrils

Clusia - epiphyte, yellow sap, lvs. many nerved.

Chiococca - fls. white, fr. compressed, lvs. smooth, shiny.

Combretum - stamens long exserted

Mandevilla - milky juice

Prestonia - milky juice

41. Shrubs.

Chomelia

Calycolpus - ovary inferior, fls. pink like rose, bark like Eucalyptus

Miconia

Clidemia

Leandra

Conostegia

Alibertia

Hamelia

Gonzalagunia

Callicarpa - stellate hairs; leaves serrate.

Aegiphila

Citharexylum - frts. orange to black, fleshy

Codonanthe - on ant nests. Small fleshy leaves.

Drymonia

Laertia - big orange flrs. in clusters

Paliconrea

Psychotria - lvs. hairy

Macronema

41. Trees

Byrsonima - lvs. brownish beneath, entire. terminal

Amaioua - branches sympodial, leaflets crowded at tips.

Bunchosia

Elaeodendron - Mangroves & beaches., fut. elaic like.

Vismia - tawny hairy beneath

Rheedia

Only in southern part of island.

Casaiporea - trunk lt. gray, lf. scars show on old trunks, lvs. toothed to undulate

Rhizophora - Mangrove

Laguncularia - Mangrove swamps. Pneumatophores

Psidium

E. Banghami: tawny velvety

Eugenia - spicy, trunk like Eucalyptus.

Tabernaemontana - flrs. yellow, twisted.

Crescentia

40. Leaves alternate.

42. Vines

Cousapoa - strangling fig, lvs. lt. beneath.

Aristolochia

Securidaca - branches act as tendrils. Frts. like Acer. Flrs. pink to purple.

Omphalea - fruit gastrula-like.

Gouania - terminal tendril

Cissus

Vitis

Davilla - lvs. rounded at base, harsh

Tetracera - lvs. acute at base, harsh. flrs white.

Passiflora - lvs. lobed.

Tournefortia - inflor. secund branched

42. Shrubs.

Coccoloba

Chrysobalanus - near South Beach. Rugose fruits.

Hibiscus - bracts

Curatella - Bald Hill, small tree. Also near South Beach.

Ouratea - lvs. serrate in upper half. flrs. yellow

Hirtella - flrs. in pink racemes, stamens exserted

Sourabea

Conocarpus - bracts, fruits ball-like

Ardisia - fleshy leaves, epiphytic. Lvs. look like Pellaeaeria.

Plumeria - milky juice, large cream flrs.

Cordia - petiole stumps

Cestrum

42. Trees

Trema - lvs. serrate

Cecropia - lvs. palmate lobed; stilt roots.

Ficus

Roupala - leaves pinnate & toothed when young.

Xylopia - parasol tree, twigs puberulent. lvs. sharp pointed.

Anona

Ocotea

Nectandra

Licania - lvs long oblong-lanceolate.

Hirtella

Pera - lip-like lenticels, peltate hairs on leaf underside, big tree. Small, rd. rugose caprules. Knobs on branches. Lemon-like leaves

Mabea - pistillate pendent racemes, lvs. wavy.

Hippomane - apple-like fruits, bracts

Mangifera

Anacardium

Ilex - bark green beneath, trunk oblate.
Apeiba - sea urchin frts., lvs. stellate pubescent.
Sucrea - capsules winged, lvs. brown beneath, slightly serrate. S. seemanii - big trees, wet places. S. part of island.
Ochroma
Guazuma - frt. papillate, like Xanthium.
Pelliciria - Mangrove swamps, leaves assymetric
Ternstroemia - conic capsules, Bark scaly. Branches whorled, lvs. lanc-obovate.
Cochlospermum - tombac like frts.
Hasseltia
Zuelania - branches at rt. angles, frts. like green apples
Casearia - stalked frts. in axils, small tree. Lvs. punctate
Xylosma - thorny; leaves crenate
Carica
Gustavia - flrs. large pinkish. Frt. large capsule like poppy frt.
Terminalia
Rapanea
Pouteria
Achras (Manilkara) large tree. Chicle and bark.
Cordia - petiol stamps. C. alliodora swollen nodes.
Enallagma - gourd like frts. Mangrove swamps.

39. Herbaceous plants.

43. Vines

Philodendron - elephant ears.
Rhodospatha - common aroid all thru woods.
Monstera - lvs. perforated.
Dioscorea
Dalechampia - small blue flrs., frt. in soft burs.
Paraphora -
Blepharodon - lvs. opp.
Funastrum - lvs. opps.

Mikania - procumbent, alt. leaves

Marsdenia - lvs. opp.
Jacquemontia - lvs. alt., flrs. blue, small.
Evolvulus - lvs. alt.
Ipomoea - lvs. alt.
Melothria - lvs. alt., gourd. Tendril it. angle to leaf.

43. Erect or procumbent.

Xanthosoma - acaulescent, lvs. puberulent, petiole long, leaf cordate.
Spathiphyllum - acaulescent, acute at base, long scape
Montrichardia - erect stem, sagittate leaves, basal lobes acute, main veich.
Dieffenbachia - erect stem, leaves cordate at base.
Bromelia - leaf margin spiny, lvs. narrow.
Aechmea - " " , lvs. broad.
Vriesia - epiphyte, broad leaves, infl. paniculate
Tillandsia - lvs. covered with fine scales.
Agave - rosk stems. Margin toothed
Hymenocallis - leaves smooth; bulb.
Musa - flrs. unisexual
Heliconia - flrs. pendent, leaves spiralled.
Costus - erect stem, lvs. spiralled, plants hirsute.
Canna - flrs. yellow
Calathea - terrestrial
Peperomia - lvs. usually thick, flrs. like catkins
Piper - spike opp. leaf.
Phytolacca
Alternanthera
Carrea
Polygala - annual
Euphorbia
Phyllanthus
Cnidoscolus - spiny

Abutilon
Waltheria - stellate hairs, flrs. yellow
Sauvagesia - stipules dissected
Begonia - stipules
Cacti
Schwackaea - 3-9 long nerves
Spigelia - capsule muricate
Curtia - annual
Centaurea - flrs. white
Schultesia - flrs. dirty pink, large
Saiphanes - saprophyte, lvs. reduced to scales.
Hyptis -
Solanum
Buchnera - hairs pubescence, lvs. stiff
Capraria - Bracts, flrs. white
Kohleria - lvs. crenate, purple beneath.
Turnera - lvs. crenate, flrs. yellow
Elytraria
Tetramerium
Geophila
Mitracarpus
Borreria

Comps

Wedelia - flrs. yellow - sandy beaches, lvs. in part 3-lobed.

April 30, 1945. Main Beach.

3 1. Wedelia trilobata (L.) Hitchc.
Procumbent, flrs. yellow. Sandy stream-side.

4 2. Vigna ~~repens~~ (L.) Kuntze lutea (Jacq.) Benth
Procumbent, flrs. dirty yellow. Sandy stream-side.

6 3. Tournefortia bicolor Swartz
Scandent shrub; flrs. white. Rocky bluff along shore.

4 4. Enallagma ~~cucurbitina~~ latifolia (Mill.) Small
Small tree, 20 ft. Flrs. greenish, sordid. Sandy thicket.

April 30, 1945. Along road near Headquarters.

5 5. Callicarpa acuminata H.B.K.
Shrub, 15 ft. Open places. Flrs. whitish.

3 6. Solanum ~~seaboum~~ Vahl lanceifolium Jacq.
Very thorny weed, coming in along roads. Flrs. white; F.st. orange. ½ in.

3 7. Phryganocydia corymbosa (Vent.) Bur.
Common vine in open thickets. Flrs. lavender.

3 8. Dalbergia Brownei (Jacq.) Urban
Clambering bush; branches act as tendrils. Flrs. white, sweet scented.

May 1, 1945. Road Headquarters to Main Beach.

2 9. Ouratea ~~Wrightii~~ (Van Tiegh.) ~~Rusby~~ guatemalensis Engl
Swollen tough rod; berries green turning to dark blue
Small tree under canopy.

3 10. Phytolacca ~~rivinoides~~ rivinoides Kunth & Bouché
Weed along roadways. As yet uncommon.

May 1, 1945. Main Beach.

2 11. Hibiscus tiliaceus L.
Flrs. yellow, turning red. Common on edges of mangrove thickets.
Shrub to 15 ft. high.

4 12. Davilla lucida Presl
Common vine of thickets exposed to sun allover island.

2 13. Rhizophora ~~mangle~~ L. brevistyla Salvosa
to 40 ft. high on this beach. Flrs. sordid yellow.

2 14. Anemopaegma orbiculatum (Jacq.) DC.
Common vine of thickets. Flrs. with cream tube and white lobes.

2 15. Entada ~~scandens (L.) Benth.~~ gigas (L.) Fawc. & Rendle
Vine growing in Mangrove thicket. Flrs. white.

4 16. ~~Nectandra~~ Phoebe Johnstonii Allen
Calyx red. Tree, 30 ft.

May 1, 1945. Road through thickets to Dynamite Storehouse.

2 17. Scleria secans (L.) Urban
Climbing 10-15 ft. into shrubs and trees; spreading.

2 18. Gouania ~~tupuloides~~ polygama (Jacq.) Urban
Common vine in open thickets.

4 19 Nectandra Gentlei Lundell
Tree, 40 ft. ~~Bacc~~ Receptacle & fruit dark green.

2 20 ~~Tabernaemontana~~ Stemmadenia grandiflora (Jacq.) Miers
Flrs. yellow, twisted.

1 21 Bauhinia ~~divaricata (Griseb.) Hemsl.~~ thompsonii Donglas
Flrs. white. Most common vine in northern half of island.

3 22 Solanum extensum Bitter
Suffrutescent, up to 6 ft. Flrs. white. Common.

May 1, 1945. Beach below hospital.

4 23 Citharexylum caudatum L.
Shrub, 8 ft. Orange frts.; flrs. white.

4 24 Chiococca alba (L.) Hitchc.
Common near shores. Flrs. pinkish. Berries white, oblate.

3 25 Byrsonima crassifolia (L.) H.B.K.
Flrs. yellow. Large tree to 70 ft. Common.

2 26 Serjania atrolineata Saus. & Wright
Common vine

May 2, 1945. Area II-B. Open thickets; palm scrub.

2 27 Serjania ~~sp.~~ mexicana Sm.
Vine. Leaves mostly fallen.

3 28 Miconia argentea (Swartz) DC.
Shrub, 8 ft. Flrs. white

1 29 Clitoria ~~rubiginosa~~ portobellensis Beurling
Stout clambering vine. Flrs. cream, flushed pink within keel.

3 30 Adiantum
Shaded bank of dry ravine.

2 31
Shaded bank of stream.

2 32 Adiantum
Shaded bank of stream.

5 33 Securidaca ~~coriacea~~ diversifolia (L.) Blake
Vine. Flrs. pink. Branches act as tendils.

May 2, 1945. Vicinity Air Strip. East Harbor

6 34 Anemopaegma orbiculatam (Jacq.) DC.
Open scrub. Flrs. cream. Fr. orbicular.

3 35 Clitorea ~~radiginosa~~ portobellensis Benth.
Open sunny scrub. Flrs. cream, flushed pink within.

4 36. ~~Banchoria~~? Stigmaphyllon ellipticum (H.B.K.) Juss.
Shrub? 8 ft. high. Flrs. yellow; calyx and petiole with glands.

4 37. Trema micrantha (L.) Blume
Small tree, 12 ft. Comes in abundantly in clearings.

3 38. Cydista heterophylla ~~Seibert~~
Flrs. lavender. Leaves fall at flowering time. Bignon. vine.

4 39. Pithecollobium ~~glabrum~~ rufescens (Benth.) Pittier
Common tree to 30 ft. Flrs. white. Frt. scarlet, twisted.

2 40. ~~sida~~? Waltheria americana L.
Weed, 5 ft. high. Roadside. Flrs. orange.

3 41. Cnidoscolus urens (L.) Arthur
Pungent hairs; leaves only at branch tips; flrs. terminal, white.

April 11, 1945. Burned-over area near Air Strip, East Harbor.

2 42. Cassia fruticosa Mill.
Shrub. Flrs. yellow. Not common.

April 13, 1945. Along South Road near South Beach.

2 43. Tournefortia Seemanni Pl. & T. Mann
Tree, 50 ft. Assoc. with Ilex and Casasporea.

2 44. Dolichocarpus dentatus (Aubl.) Standl
Vine under shade of canopy. Fruit red.

2 45. Protium McLeodii n. sp.
Small tree. 25 ft. high.

2 46. Vismia ferruginea H.B.K.
Large bush in open places.

2 47. Cordia ferruginea (Lam.) R. & S.
Common shrubby vine.

2 48. Hyptis ~~suaveolens~~ capitata Jacq.
Roadside, 4 ft.

2 49. Neurolaena lobata (L.) R. Br.
Roadside.

2 50. Adiania ~~volubata~~ compressa H.B.K.
Epiphyte.

April 10, 1945. Along Marino River

2 51. Swartzia ~~simplex~~ darienensis Pittier
Undershrub, dense shade. 15 ft. high. Fruit orange.

3 52. Marila macrophylla Benth.
Shrub in shaded stream-bank.

2 53. Adiantum
On rocks of stream-bed. Covered with water in wet season.

1 54. Casearia ~~javitensis~~ H.B.K. myrianthaTurcz.
Small tree.

May 2, 1945. Bluffs at East Harbor.

3 55. Plumeria ~~rubra forma~~ acutifolia ~~Poir.~~ (Ait.) Woods.
Flrs. waxy white, sweet scented. Plants 6-10 ft. high.

3 56. ~~Abutilon crispa~~ Pavonia malacophylla (Mast. & Mast.) Wright
Plants 5 ft. high.

May 3, 1945. Beach, mouth of Mato Puerco River.

4 57 ~~Erythroxylon~~ Lonchocarpus ~~latifolius~~ pentaphyllus (Poir.) DC.
Small tree, 15 ft. high. With Mangrove & Hibiscus tiliaceus.
Flrs. reddish. Myrmecophilous.

May 3, 1945. Trail along Mato Puerco River.

2 58. Hintella ~~americana racemosa Lam.~~ oblongifolia DC.
Shrub or tree to 20 ft. In shade of canopy. Flrs. pink.

May 3, 1945. Area 3 D. Casiponrea, Ternstroemia, Ilex forest.

4 59. Cordia ferruginea (Lam.) R & S.
Shrub, 8 ft. high.

3 60. Calycolpus warcewicziana Berg
Small tree, 20 ft. high. Flrs. pink. In shade.

3 61 Psychotria undata Jacq.
Understory shrub. 6 ft. high. Berries red.

2 62
Shaded dry ravine.

3 63. Trichomanes
Shaded dry ravine. Common fern of forest floor.

May 3, 1945. Along East Road between Headquarters and Mato Puerco.

5 64. Amphilophium paniculatum (L.) H.B.K.
Flrs. pink. Vine. No limb to corolla.

6 65. Casiponrea ~~pedantha Handl.~~ elliptica (Sw.) Poir.
Flrs. white. Tree, 30 ft. high. Reaches height of 60 ft.

3 66. Eugenia organoides Berg.
Flrs. white.

4 67 Protium ~~Mc~~ McLeodii Johnst. n. sp.
Tree. 35 ft. high.

4 68 Cissus ~~rhombifolia Vahl~~ erosa L.C. Rich.
Branches of inflorescence scarlet. Berries blue-black. Leaves somewhat fleshy, vine.

2 69 Bauhinia ~~excisa (Griseb.) Hemsl.~~ thompsonii J.M. Gleason
Flrs. white. Common vine.

May 5, 1945. Along road from Headquarters to Maximum Observation Point.

6 70. Hiraea ~~obovata Nicdenzu~~ reclinata Jacq.
Shrub, 4 ft. Flrs. yellow.

4 71. Vernonia cenescens HBK.
Suffruticent. 6 ft. Flrs. white.

5 72. Miconia impetiolaris (Swartz) Leon
Shrub to small tree. 20 ft. high. Flrs. white.

5 73 Struthanthus orbicularis (HBK.) Blume
Epiphyte. On Spondias? Vine.

4 74. ~~Gram.~~ Setaria tenax (L. Rich) Desv.
Roadside weed.

4 75. Tecoma stans (L.) Juss.
Shrub to 20 ft. Old frt. and new leaves.

7 76. Guazuma ulmifolia Lam.
Tree to 25 ft. Flrs. cream.

6 77. Ilex guayennensis (Aubl.) Kuntze
Tree 40 ft. high.

May 4, 1945. Trail from Headquarters to Punta del Cabo. Along bluffs near beach.

3 78. Chrysobalanus icaco L.
Shrub 6 ft. high.

2 79. Dolicarpus dentatus (Aubl.) Arnd.
Clambering vine over Chrysobalanus. Frt. red.

4 80. Sourouba vensa Schery
Small tree. 25 ft. high.

5 81. ~~Fabiria Portoriana n. sp~~ Matayba glaberrima Radlk.
Tree 40 ft. high. Flrs. white.

3 82. Entada ~~scandens~~ (L.) Benth. gigas (L.) Fawc. & Rendle
Vine clambering over Chrysobalanus. Flrs. white.

3 83. ~~Tabernaemontana~~ Stemmadenia grandiflor. (Jacq.) Miers
Understory tree, 15 ft. Flrs. yellow.

May 6, 1945. South Beach.

4 84. Elaeodendron ~~Thompsonii n.sp.~~ xylocarpum (Vent.) DC.
Small tree. 15 ft.

May 8, 1945. Old hospital area near Headquarters. Stony ridge.

4 85. Connarus panamensis Griseb.
Common vine over whole island. Forms lianas in forest.

May 8, 1945. Enlisted Mens Beach, near Headquarters.

3 86. Cyperus ferax L.C. Rich
Damp sandy soil under cocoanut palms.

3 87. Tournefortia bicolor Swartz
Shrub, 5 ft. tall. Flrs. white. Rocky bluff on beach.

May 9, 1945. Area 3A, just north of South Beach, Carapomea, Ternstroemia, Ilex forest.

9 88. Miconia hyperprasina Naud.
Tree 10-15 ft. Flrs. white. Leaves thin.

6 89. Miconia pteropoda Benth.
Tree or shrub. 20 ft. Flrs. white. Inflor. branches pink.

5 90. Amaioua corymbosa H+BK.
Small tree, 20 ft. Frt. blue-black.

2 91. Psychotria cartaginensis Jacq.
Small shrub. 3 ft. Flrs greenish.

4 92. Scleria secans ~~bracteata~~ Cav.
Climbs to 15 ft. in shrubbery. Sunny openings in pasture.
6 93. Ternstroemia Seemannii Tr. & Planch.
Tree to 50 ft. Seeds scarlet.

Area 11A, North end of Island, Scrub land with Bactris.

4 94. Casearia guianensis (Aubl.) Urban
Shrub, smothered by vines. Flrs. white. 5 ft. high. Remisgreen.
4 95. Forsteronia spicata (Jacq.) Muller
Shrub, 6 ft. Flrs. just opening, greenish. Milky juice.
6 96. Miconia hyperprasina Naud.
Small tree. 15 ft. Flrs. white.
4 97. Martinella obovata (H.B.K.) Bur. & Schum.
Vine. Flrs. maroon. Rare.
7 98. Allophylus ~~Thouinia~~ occidentalis (Sw.) Radlk.
Shrub. Flrs. white with new leaves.

Main Beach. May 11, 1945.
2 99. Apeiba tibourbou Aubl.
Tree up to 60 ft. Rocky bluff.
3 100. Conocarpus erecta L.
Tree to 30 ft. With mangrove. Beach sand.
3 101. Clusia minor L.
Tree. 20 ft. high. Leaves very fleshy.
3 102. Bunchosia cornifolia H.B.K.
Shrub. Flrs. lemon-yellow, clawed. Bluffs of beach.
2 103. Cissus sicyoides L.
Vine on rocks of beach.

5 104. Hymenocallis ~~americana~~ littoralis (Jacq.) Salisb.
Flrs. white, soon wilting. Common in sand just above high tide.
Bulbs to 4 in. diam. Plants 30 in. high.

4 105. Eugenia antiquae Riley
Shrub. Flrs. white. Bluff above beach.

4 106. Ficus Urbaniana Warb.
Tree 50 ft. Frts. green, ovoid.

5 107. Bursera ~~simaruba~~ (L.) Sarg.
Tree 40 ft. Rocky bluff of beach.

May 11, 1945. West loop Rd. Area 7A.

5 108. Hirtella americana L.
Tree 35 ft. high.

3 109. Banisteria ~~exalata (Griseb.) Hemsl.~~ thompsonii Dunst.
Common vine in northern part of island.

3 110. Amphalea ~~diandra L.~~ panamensis (Benth.) D. M. Johnston.
Vine, climbing high in trees.

May 14, 1945. South Rd. just north of South Beach.

2 111. Hirtella Hauenensis DC.
Shrub 4 ft. high. Corolla yellow. Calyx red. Rare.

5 112. Cnestidium rufescens Planch.
Woody vine climbing high in trees. Common.

3 113. Serjania ~~mexicana K. Sp.~~ mexiteo Dunst.
Woody vine climbing over shrubs in open places.

May 14, 1945. Along road to Naval Cove.

6 114. Tournefortia syringifolia Vahl
Shrub 5 ft. high. Flrs. greenish. Rare.

2 115 Peltastes isthmicus Woodson
Vine; milky juice. Flrs. sulphur yellow. Open places. Rare.

2 116. Hirtella ~~racemosa Lam.~~ oblongifolia DC.
Shrub. 10 ft. Flrs. pink.

2 117. Prestonia portobellensis Benth.
Vine; milky juice. Open sunny places.

2 118. Eugenia origanoides Berg
Small tree 15 ft.

3 119. Bombax sessile L. (Benth.) ~~Bark~~. Balsh.
Large tree. 60 ft.

May 14, 1945. Beach, Naval Cove

3 120. ~~Conocarpus~~ Avicennia nitida Jacq.
Small tree 25 ft. Flrs. greenish.

May 16, 1945. Area 5 D. Carapourea-Pera forest.

4 121. Hirtella americana L.
Fruit lustrous black, puberulent. Tree 30 ft. high.

2 122.
Epiphytic moss on Ilex guayanensis.

3 123. Philodendron guatemalense Engler
Epiphytic vine. Spathe white with purplish glandular areas around inside below.

4 124 Adiantum
Rather dry stream banks in shade.

5 125 Adiantum
Moist edges of shaded stream.

May 16, 1945. Naval Station area. Bluffs above sea.

2 126. Tecoma stans (L.) Juss.
Flrs. yellow. Bushes 15 ft. high.

2 127. Sida acuta Burm.
Weed. Flrs. yellow. Plant 1 ft.

2 128. Calonyction aculeatum (L.) House
Weed. Vine. Flrs. white. Trailing on ground.

1 129. Setaria geniculata (Lam.) Beauv.
Introd. grass about station.

2 130. Cenchrus brownii Ros.
Introd. around station.

3 131. Desmodium canum Gmel.
Introd. around station. Flrs. purple. Plant 1 ft.

2 132. Scoparia dulcis L.
Flrs. white. Introd. around station.

3 133.
Flrs. yellow. Introd. around station.

May 16, 1945. Playa Grande

3 134 Tillandsia fasciculata Swartz
Epiphyte on prop roots of Mangrove. Leaves whorled. Plant 1 ft.

4 135 Uniola pittieri Hackel
Forms colonies in beach sand. 2 ft. high.

5 136. Ficus bullenei n. sp.
Large tree, 60 ft. Edge of mangrove swamps.

5 137. Casearia ~~javitensis H.B.K.~~ myriantha Turcz.
Tree. 30 ft. Berries red.

3 138. Miconia hyperprasina Naud.
Small tree 20 ft. Bark white. Twigs brittle.

4 139 Andira inermis W.Wr.
Tree 40 ft. Fr. green, hard.

May 18, 1945. Woods near Main Beach.

5 140. Tournefortia bicolor Swartz
Flrs. white, fragrant. Berries white, translucent. Vine.

3 141. Echinochloa (~~L.~~) colonum (L.) Link
Roadside grass.

3 142. Vernonia cinerea (L.) Less.
Flrs. pinkish. Roadside.

3 143. Tridax procumbens L.
Shaded moist stream-bank.

3 144. Piper sp. Sp. C
Suffruticent. 4 ft. high. Shaded stream-bank.

2 145.
Shaded stream-bank.

4 146 Piper aequale Vahl Sp. A.
Suffruticent. 5 ft. high. Shaded stream bank.

3 147 Eleutheranthera ruderalis (Swartz) Sch.-Bip.
Procumbent on cleared land.

4 148 Jacquemontia tamnifolia (L.) Griseb.
Herbaceous vine. Flrs. blue.

May 19, 1945. Near Headquarters.

5 149. Ximenia americana L.
Tree 20 ft. Flrs. white.

2 150 Tournefortia syringifolia Vahl
Clambering bush, 4 ft. Flrs. greenish.

May 19, 1945. Area 8A. Cedrela, Luehea Assoc.

4 151 Casearia ~~nitida (L.) Jacq.~~ banquitana Krause
var. laevis (Standl.) Sm & Ths
Small tree undercanopy. 15 ft.

2 152.
Lichen on forest ground.

4 153.
Fern climbing shaded tree-trunk.

May 19, 1945. Rocky bluffs, East Harbor.

2 154. Allophyllus
Bush, 8 ft. Flrs. yellow.

3 155. ~~Chromelia spinosa Jacq.~~ Guettarda odorata (Jacq.) Lam
Small bush, 4 ft. Flrs. lavender. Branches spinescent.

5 156. Marsdenia. ~~Apparently nov~~ margaritaria R C Foster
Vine. milky juice. Flrs. dirty purple.

3 157. ~~Serjiania~~ Heteropteris laurifolia (L.) Juss.
Woody vine.

5 158. Bursera simaruba (L.) Sarg.
Small tree. 12 ft. high.

5 159. Casearia ~~nitida (L.) Jacq.~~ banquitana Krause
var. laevis (Standl.) Sm & Ths
Small tree. 15 ft. high. Flrs. white.

May 19, 1945. Rio Mariño Valley.

2 160
Lichen on shaded tree trunk.

4 161
Lichen on shaded tree trunk with no. 160.

2 162 Mabea occidentalis Benth.
Small understory tree. 10 ft. high.

2 163. Ichnanthus nemorosus (Sw.) Doell.
Moist flood plain of stream.

3 164. "

Steep clay bank of stream.

2 165. Fimbristylis annua var. diphylla Kük.
Sandy flood plain of stream.

3 166. Cyperus simplex Ham. K.
Sandy flood plain of stream.

3 167. Fimbristylis miliacea (L.) Vahl
Sandy flood plain of stream.

4 168 Paspalum conjugatum Berg
Sandy flood plain of stream.

4 169 Eleusine indica (L.) Gaertn.
Sandy flood plain of stream.

6 170. Panicum pulchellum Raddi
Procumbent. Sandy flood plain of stream.

May 18, 1945. Enlisted Mens Beach.

2 171. Opuntia elatior Mill.
Flrs. yellow. Pads 10 in. long x 8 in wide. On rocks.

2 172. ~~Hylocereus~~ Cereus " costaricensis (Weber) ~~B. Hk.?~~ Berger
Flrs. white. Stems 3-angled. On rocks of beach.

May 16, 1945. Playa Grande.

2 173. Sesuvium portulacastrum L.
Flrs. pink. Plant very fleshy. On beach sand.

May 21, 1945. M-Area Road.

4 174 Nectandra Gentlei Lundell
Tree 35 ft. Peduncles & fr. green.

2 175 Miconia argentea (Sw.) DC.
Tree. 15 ft.

6 176 Piper ~~subtrinerve~~ Trel. tapianum Trel.
Tree 20 ft.

3 177. Clitoria portobellensis Benth.
Vine. Clambering.

5 178 Amaioua corymbosa H.B.K.
Tree. 20 ft. Fr. blue-black. Edge of tidal swamps.

May 22, 1945. Cleared land around headquarters.

2 179. Euphorbia thymifolia L.
Procumbent annual

4 180. Serjania atrolineata Sauv. & Wright
Scandent vine.

1 181. Euphorbia ~~notata~~ Lag. glomerifera (Millsp.) Wheelen
Annual.

3 182. Alternanthera ficoidea (L.) R. Br.
Procumbent, rooting at nodes. Flrs. white.

1 183. Passiflora biflora Lam.
Fr. green, ½ inch long. Vine 4 ft. long.

May 22, 1945. Vicinity of Goat Farm, near Rio Mats Puerco.

5 184. Fischeria ~~Martiana Hemsl.~~ funebris (Hbm.) Blake
Vine. Milky-juice. Flrs. white: Calyx pink-tipped.

1 185. Alyxa latifolia L.
Dry places.

4 186. Proteum McLeodii n.sp.
Tree. 25 ft.

3 187. Sorghum halepensis (L.) Pers.
Probably introduced, near Goat Farm.

1 188. Amaranthus ~~dubius~~ Mart. retroflexus L.
as 187.

2 189. Melochia ~~nodiflora~~ tomentosa corchorifolia L.
as 187.

1 190 Tournefortia syringifolia Vahl
Flrs. greenish. Clambering bush.

2 191 Cordia ferruginea (Lam.) R. & S.
Shrub, 5 ft.

May 23, 1945. West Loop Rd.

5 192. Xylopia frutescens Aubl.
Tree. Flrs. cream-white.

3 193. Cissus rhombifolia Vahl
Vine. ± fleshy.

1 194. Cassia fruticosa Mill.
Shrub with long weak branches. 5 ft. Flrs. yellow.

2 195. Erigeron bonariensis L.
Herb, 3 ft. Flrs. drab.

May 23, 1945. Cleared land at Headqtrs.

3 196. Corchorus ~~sp.~~ siliquosus L.
Small shrub with last seasons fruit.

3 197. Sporobolus indicus (L.) R. Br.
In tufts. 2 ft.

2 198 Fimbristylis annua var. diphyll. Kük.
In tufts.

May 24, 1945. Mouth of Rio Mata Puerco.

1 199. Aspasia principissa Rchb. f.
Epiphyte. Damp, shaded forest. Upper petal sulphur-yellow; the three lower greenish, striped with brown.

1 200.

Epiphyte.

4 201. Bouteria campechiana (HBK) Baehni
Tree. 20 ft. Bluffs of beach.

4 202. Laguncularia racemosa (L.) Gaertn.
Tree. 25 ft. Sandy beach. Leaves fleshy. Flrs. white.

4 203. Cassipourea ~~podantha Standl~~. elliptica (Sw.) Poir.
Tree. 15 ft. Flrs. greenish-yellow.

2 204 Vismia ferruginea HBK.
Tree. 10 ft. Flrs. whitish. Petals brown on outside.

3 205.

Fruiting moss on decayed log.

3 206. Ficus Leavensii n. sp.
Tree. 15 ft. Milky juice.

May 24, 1945. Area 2. North of Naval Cove.

2 207.

Climbing fern on old log.

2 208. Schizanthus pallens (Swartz) Munro
Rooting at nodes. Shaded ravine bank.

2 209. Oncidium paramense Sodiro.
Epiphyte. Flrs. brownish-yellow.

2 210

Vine fern. Rooted in ground.

2 211

Liverwort. Common in shady woods.

3 212.

Shaded steep banks of ravine.

May 25, 1945. Rd. to Garbage Dump.

5 213. Psychotria ~~longicollis Benth.~~ horizontalis Sw.
Shrub 3-4 ft. Flrs. white. Shade of forest.

2 214 Aechmea magdalenae André
Moist ravines. Pineapple-like fruit on stalk 10 in. long.
Leaves 5-6 ft.

1 215 Alibertia edulis A. Rich.
Woody vine. Flrs. white, 4-lobed.

3 216. Coccoloba ~~reclinata n. sp.~~ warittii Dsn ft.
Tree, 20 ft. Bluffs of coast.

4 218 Miconia argentea (Sw.) DC.
Large shrub. 18 ft. Flrs. white.

2 219 Passiflora bifloria Lam.
Herbaceous vine. Flrs. greenish white.

2 220 Neurolaena lobata (L.) R. Br.
Herb. 3 ft. Flrs. yellowish.

May 25, 1945. Main Beach & vicinity.

5 221. Swartzia darienensis Pittier
Tree 20 ft. Flrs. yellow.

2 222 Carica papaya L.
♂ plant.

2 223. Capraria biflora L.
Herb. Flrs. pinkish-white.

2 224 Tabebuia palustris Hemsl.
Mangrove swamps. Tree. 12 ft.

2 225 Montrichardia arborescens (L.) Schott
Mangrove swamp. 6 ft. tall. erect.

May 26, 1945. Vicinity Bald Hill.

5 226 Cordia ~~bicolor~~ panamensis Riley
Tree to 60 ft. Flrs. white.

4 227 Piper ~~subbullatum Trel.~~ tapianum Trel.
Shrub. 15 ft. high. In scrub. Leaves replped on stem.

1 228 Spiranthes orchioides (Swarts) A. Rich.
Herb. Creamy orange flowers. Corolla & upper stem glandular.

4 229. Miconia hyperprasina Nand.
Shrub 12 ft. Flrs. white.

4 230. Miconia albicans (Swarts) Triana
Shrub 6-8 ft. Flrs. white.

3 231. Allophyllus occidentalis (Sw.) Radlk.
Small tree 25 ft. Flrs. white.

May 27, 1945. Woods along South Rd.

4 232.
Heavy shade on ground.

May 28, 1945. Road between Areas 4 and 5.

1 233. Cecropia arachnoidea Pittier
Tree to 60 ft.

1 234 ~~Rhodospathe~~ Philodendron ~~grandipes Krause~~ oblanceolatum Engl.
Fruit orange. Common vine throughout island

3 235 Ponteria campechiana (H.B.K.) Baehni
Tree 20 ft. Fruit chestnut brown.

3 236 Psychotria ~~longicollis Benoist~~ horizontalis Sw.
Bush 6 ft. Flrs. white.

3 237 Schmanthes nemorosus (Sw.) Doell
Common grass along roads. Rooting at nodes and sprawling to 4 ft. over low bushes.

3 238 Fischeria ~~Boottiana Hemsl~~ funebris (Urban) Blake
Milky juice. Flrs. white. Vine, herbaceous.

3 239. Miconia impetiolaris (Swartz) Don
Shrub 10 ft. Fruit red.

4 240 Coussapoa panamensis Pittier
Woody vine. Fruit green.

June 5, 1945. Cleared area around Topic Yard.

4 241. Tournefortia syringifolia Vahl
Scandent shrub. Corolla yellowish-green.

4 242. Dactyloctenium aegyptium (L.) Richt.
Stems flat on ground. Introduced?

June 6, 1945. Bluffs at East Harbor.

4 243. Cyperus diffusus Vahl
Thin soil over rock. Open sunny places.

2 244 Adiantum
Thin soil on black volcanic boulders. In shade.

4 245 Leichromena ciliata Vahl
Thin soil over rock. Open sunny places.

4 246 Croton trinitatis Millsp.
Flrs. white. Among larger grasses on stony bluff.

4 247 Apeiba tibourbou Aubl.
Tree to 40 ft. Flrs. yellow.

2 248 Leichromena ciliata Vahl
Thin soil over rock. Open sunny places.

2 249 Tournefortia syringifolia Sw
Scandent shrub. Flrs. greenish yellow.

4 250 Olyra latifolia L.
Viny grass clambering in shrubs. 3 ft. long.

4 251. Cyperus tenerrimus Prsl
Open sunny places.

3 252. Setaria tenax (L. Rich) Desv.
Roadsides. In clumps.

5 253. Elytraria imbricata (Vahl) Pers.
Flrs. blue. Open sunny places.

3 254. Phaseolus ~~adenanthus Meyer~~ stenolobus Standl.
Herbaceous vine with last season's fruits. In shade.

3 255. Casearia ~~nitida (L.) Jacq.~~ bonquitana Krause var. calvis (Standl.) Imm. ex Urb.
Tree 20 ft. high.

June 7, 1945. Punta Cruces, near East Harbor, Scrub thicket.

6 256. Cordia bicolor DC.
Tree to 60 ft.

3 257. Trema micrantha (L.) Blume
Tree to 30 ft.

4 258 Forsteronia spicata (Jacq.) Meyer
Clambering vine. Flrs. greenish-white. Milky juice.

3 259. ~~Tabernaemontana~~ Stemmadenia grandiflora (Jacq.) Miers
Shrub to 15 ft. Flrs. yellow, twisted. Fr. usually in pairs.

June 8, 1945. Main Camp Area.

4 260 Ilex guayennensis (Aubl.) Kilze
Flrs. white. Tree 25 ft.

June 9, 1945. Area 11b, northern part of island.

5 261. Casearia guianensis (Aubl.) Urban
Tree 20 ft. Fr. a capsule, 3 carpels, red inside.

3 262. ~~Clidemia hirta (L.) Don~~ Heterotrichum octonerve (Bonpl.) DC
Shrub 3 ft., stream-bank, shaded. Flrs. white. Leaves rugose.

3 263.
Liverwort on shaded boulder, blue-green in color.

3 264. Dissertia Haenkeana DC.
Shrub to 12 ft. Calyx red, corolla yellow.

4 265 Miconia pteropoda Benth.
Shrub to 12 ft. in thickets.

4 266 ~~Eugenia~~ Miconia hyperprasina Naud.
Shrub 8 ft. in thickets.

June 12, 1945. Area 8B.

5 267 ~~Fischeria Haenkeana Klotzsch~~ Fischeria funebris (Desv.) Beadle
Flrs. white with green center. Vine, milky juice.

1 268
Bracket fungus. Decaying log. Dark brown.

1 269.
Bracket fungus. Decaying log. Cinnabar red.

4 270 Rhynchospora ~~ptenota~~ cephalotes (L.) Vahl
Common sedge all over island.

4 271 ~~Eugenia O'Neillii Lundell~~ Myrciaria O'Neillii (Lundell) Legr. & Sta.
Tree, 30 ft. Fr. green.

1 272
Fungus on dead limbs. Black stalk with white tips.

7 273 Alibertia edulis (L.) Rich.
Bush to 10 ft. Flrs. white, 4 or 5 lobed, mostly 4-lobed.

3 274. ~~Roupala~~? Casearia ~~acuteata Jacq~~. & Johnii Sm. Fl.
Flrs. in nodes, whitish. Tree to 25 ft.

3 275. ~~Exertia~~ Palicourea guianensis Aubl.
Shrub 6 ft. Corolla yellow, calyx red.

5 276. Cordia ~~bicolor~~ panamensis Riley
Tree to 60 ft. Flrs. white.

4 277 Guazuma ulmifolia Lam.
Tree 25 ft. Flrs. greenish.

June 13, 1945. Thickets, edge of Bald Hill.

3 278. Scleria ~~secans~~ pterota Presl
Scrambler 15 ft. or more over bushes.

4 279 Psychotria ~~carthaginensis Jacq~~. fruticetorum Standl
Small shrub 3-4 ft. Flrs. white. Leaves lustrous. In shade.

3 280 ~~Exertia~~ Palicourea triphylla DC
Shrub 6 ft. Corolla yellow, calyx & peduncle red. May be 2 on isl

4 281 Miconia ~~spl~~ ibaguensis (Bompl.) Tr.
Shrub 7 ft. Fits. pubescent.

6 282 Clidemia rubra (Aubl.) Mart.
Shrub 2 ft. Flrs. pinkish, at nodes. Only one at Bald Hill.

2 283. Miconia albicans (Swartz) Triana
Shrub 8 ft.

4 284 ~~Eugenia vallis Sandt~~. Myrcia tomentosa (Aubl) DC
Small tree to 15 ft. Frt. yellowish.

3 285 Xanthoxylum setulosum wils.
Large tree to 80 ft. Trunk, branches & leaf rachis spiny.
Stems hollow and full of ants.

3 286 ~~Xanthoxylum setulosum~~ wils. Spondias mombin L.
Tree 30 ft.

2 287 Calycolpus Warscewicziana Berg
Tree 25 ft.

2 288 Sida linifolia Juss.
Somewhat woody herb. Corolla not noticeable.

3 289 Apeiba tibourbou Aubl.
Tree to 35 ft. Flrs. yellow. Last year's fr. still hanging on some trees.

5 290 Psidium guineense Swartz
Small tree 25 ft. Fr. green.

4 291 Eugenia antiquae Riley
Tree about 30 ft.

4 292 Allophyllus occidentalis (Sw.) Radlk.
Shrub or small tree 15-20 ft.

3 293. Dichromena ciliata Vahl
Bracts white above. Common on Bald Hill.

1 294 Cedrela fissilis Vell.
Tree 50 ft. Flrs. whitish.

June 15, 1945. Thicket bordering Bald Hill.

2 295 Psidium guineense Swartz
Shrub 5 ft. Flrs. white. Perianth lobes reflexed.

5 296 Desmodium axillare var. acutifolium (Kuntze) Urban
Rooting at nodes. Flrs. purple.

3 297 Vismia ferruginea H.B.K.
Shrub 8 ft. Flrs. brown without, waxy within.

6 298 Xylopia aromatica (Lam.) Mart.
Tree to 35 ft. Flrs. yellowish-white.

3 299 Cochlospermum vitifolium (Willd.) Spreng.
Tree to 40 ft.

2 300 Tetragastris ? panamensis (Engl.) Kuntze
Tree to 50 ft.

3 301 Ponteria campechiana (H.B.K.) Baehni
Tree 40 ft. Frts. yellowish when ripe, flesh yellow.

1 302 Bombax ~~Ceiba L.~~ quinatum Jacq.
Tree 80 ft.

June 18, 1945. Area 8 A. Northeastern watershed of Orland.

1 303 Cedrela fissilis Vell.
Tree 60 ft. Bark gray, rough.

2 304
Bracket fungus. Rich brown, gelatinous. Old trunk.

3 305 Olyra latifolia L.
On thickets. Sending down roots from nodes, 5-6 ft. long.

2 306 Isertia Haenkeana DC.
Shrub to 12 ft. Corolla yellow. Calyx red and inflor. branches.

3 307
Moss on bark of Cedrela, fruiting.

6 308 Lasiacis oaxacensis (Steud.) Hitchc.
Clambering in thickets 4-5 ft. long. Roots at nodes.

4 309 Prestonia portobellensis (Benth.) Woods.
Vine in open thickets. Flrs. white, flushed pink near mouth, juice not milky.

6 310 Citharexylum caudatum L.
Shrub 10 ft. in open thickets. Flrs. white.

June 20, 1945. Vicinity of Bald Hill.

6 311 Cornutia ~~grandiflora (C. & S.) Schauer~~ microcalyxiba var. pubescentia Moldenke
Flrs. bluish violet. Shrub 8 ft. Open thicket.

3 312 Casearia ~~javitensis~~ ~~H.B.K.~~ myriantha Turcz.
Tree 25 ft. Fruit reddish-purple.

3 313 Andropogon leucostachyus H.B.K.
Between tufts of grass on Bald Hill.

June 20, 1945. Along Merino River near West Loop Road

4 314. Adiantum
Shaded, dry canyon.

4 315 Fimbristylis miliacea (L.) Vahl
Moist flood plain of stream.

3 316 Panicum pilosum Sw.
as no. 315.

4 317 Paspalum conjugatum Berg
as no. 315.

3 318 Borreria ocymoides (Burm.) DC.
as no. 315.

3 319
Bracket fungus on decaying log. Gleonis buff above.

1 320
Agaric. Light sulpur yellow.

1 321
Agaric Grayish brown above; chocolate brown gills.

3 322 Scleria pterota var. melaleuca Uetteen
as no. 315.

3 323 Dichromena ciliata Vahl
as no. 315.

3 324 Ponteria stipitata Cronquist
Tree 35 ft. Flrs. white. Roadside.

3 325
Shaded ravine. Well drained slopes.

4 326

as 325.

4 327 ~~Eugenia~~ Myrciaria O'Neillii (Lundell) Dmyta.
Tree 25 ft. Fruit cherry-red, juicy. Roadside

June 22, 1945 Main Beach area.

2 328 Agaric with white lac mantel, lt. brown head, white stalk.

1 329 Pelliciera rhizophorae Tr. & Planch.
Mangrove swamps. Flr. white, calyx white.

3 330 Tabebuia palustris Hemsl.
Mangrove swamps. Flrs. white. Two yellow stripes in throat.

3 331 Cenchrus Brownii Roem. & Schult.
Cleared areas near beach.

3 332 Cyperus rotundus L.
Sandy places near beach.

4 333. Eclipta alba (L.) Hassk.
Waste places near beach. Flrs. white.

3 334 Cissus sicyoides L.
as 333.

5 335 Digitaria sanguinalis (L.) Scop.
as 333.

5 336 Panicum maximum Jacq.
as 333. 7 ft. high.

4 337 Eleusine indica (L.) Gaertn.
as 333.

June 23, 1945. Area 7a. Tetragastris forest.

4 338 Martinella obovata (H.B.K.) Bur. & Schum.
Vine clambering high in trees. Green pods pendant.

5 339 Forsteronia viridescens Blake
Vine, milky juice. Pods paired. High in trees.

June 25, 1945. Area 7a. Tetragastris forest

6 340 ~~Topobea~~ ?) Henriettea succosa (Aubl.) DC.
Small tree 15 ft. in shady stream-side. Flrs. whitish, stamens purple. Bark whitish-gray.

5 341 Chiococca alba (L.) Hitchc.
Clambering bush in open scrub. Flrs. white, turning yellow; fragrant.

4 342 Tetragastris panamensis (Engl.) Kuntze
Tree to 40 ft. Flrs. whitish.

3 343 Panicum pilosum Swartz
Stream side, shaded.

2 344
On ground. Cream colored.

2 345 Pharus latifolius L.
Shaded forest floor. Uncommon.

4 346 Cyperus simplex H.B.K.
Shaded forest floor.

June 26, 1945. Vicinity Naval Station. Coastal bluffs.

2 347. Sida acuta Burm.
Herb. 2 ft. Flrs. yellow. Weed.

4 348. Ilex guayennensis (Aubl.) Kuntze
Shrub 7 ft. Flrs. white, petals 4. Rocky bluffs.

4 349 Andropogon bicornis L.
Tufted grass. 3ft. high. Waste places.

3 350 Amaranthus dubius Mart.
Weed in waste places.

4 351 Emilia sonchifolia (L.) DC.
Flrs. purple, weed in waste places.

2 352 Sporobolus indica (L.) R.Br.
Tufted. Inflor. narrow.

5 353 Spathiphyllum ~~Friedrichsthalianum~~ phrynifolium Schott
Shaded stream-bed. 4ft. high, erect.

5 354 Pipsa aequale Vahl sp. A.
Shrub 4ft., shaded stream bank.

3 355
Rust on vine.

3 356 Vismia ferruginea H.B.K.
Tree 25ft. Thickets.

2 357 Vernonia canescens H.B.K.
Vine with last seasons fr.

3 358 Citharexylum caudatum L.
Shrub 8ft. Fr. orange. Flrs. white. Thickets.

4 359 Paspalum paniculatum L.
Tufted. Waste places.

4 360 Eleutheranthera ruderalis (Swartz) Sch. Bip.
Herb. Very small inconspicuous yellow flrs.

2 361 Euphorbia ~~hirtana Lag.~~ glomerifera (Millsp.) Wheeler
Waste places.

3 362 Setaria geniculata (Lam.) Beauv.
Waste places.

3 363 Arachis hypogaea L.
Flrs. yellow. Peanuts prob. introduced from S. Carolina by sailor who had some sent to him. Waste places.

4 364 Sporobolus indica (L.) R.Br.
Tufted, waste places.

4 365 Melampodium divaricatum (Rich.) DC.
Flrs. bright yellow. Waste places.

June 26, 1945. Area 11a & 11c. Tetragastris forest.

1 366
Fungus. White, flushed brown at base, on dead sticks, shade.

5 367. Prestonia portobellensis (Benth.) Woodson
Vine. Flrs. dirty pink. Corolla with long tube and flared mouth; juice not milky. Opening in forest.

4 368. Pithecellobium rufescens (Benth.) Pittier
Fr. scarlet, twisted. Tree 20 ft. Roadside.

4 369 Casearia ~~aculeata~~ Jacq. St Johnii Dm Gtr Type coll.
Flrs. greenish-yellow. Tree 30 ft.

4 370 Chiococca alba (L.) Hitchc.
Clambering bush. Flrs. cream colored. Thickets.

June 27, 1945. Area 11 D.

3 371
Rhizome climbing on tree trunk. Shaded forest.

4 372 Allophylus occidentalis (Sw.) Radlk.
Tree 25 ft. in shade of forest. Fr. orange.

5 373 Ardisia compressa H.B.K.
Tree 15 ft. Shaded ravine. Flrs. white, corolla reflexed. Berries blue-black.

3 374 ..
Sides of heavily shaded ravine. Separate fruiting frond.

3 375
Heavily shaded ravine.

3 376 Piper breve C. DC. Sp. B.
Heavily shaded ravine.

3 377 Coccoloba ~~receptitia n. sp.~~ waillii S. M. Jtn.
Tree 30 ft. Open edge of thicket.

3 378 Alibertia edulis (L.) Rich.
Shrub. Shaded forest. Flrs. white, 4 parted.

3 379 Tournefortia syringifolia Vahl
Clambering shrub. Openings in forest.

5 380 Hasseltia floribunda HBK.
Tree 15 ft. Edge of thicket. Flrs. white. Fst. purplish. corolla reflexed.

7 381 Hamelia nodosa M. & G.
Shrub 5-10 ft. Corolla tubular, slightly expanding at apex, at first orange, later turning red, tube somewhat angled.

5 382 Rhynchosia ~~pyramidalis (L.) Hook~~ precatorius (H & B) DC.
Woody vine, climbing high. Seeds red & black. Thickets.

June 28, 1945. Area 8c.

5 383 Lasiacis procerrima (Hack) Hitchc.
Grass 4 ft. high, weak, ascending. Roadside.

4 384 Lycoseris ~~crocata (Benth.) Blake~~ latifolia (Lam) Britt.
Shrub 3 ft. Last season's fruits. Roadside

6 385 Psychotria cuspidata Bred.
Shrub 4 ft. Leaves lustrous, flrs. white. Deep shade of woods.

4 386 Solanum extensum Britt.
Shrub 6 ft. Frts. dark purple.

3 387 Allophyllus occidentalis (Sw.) Radlk.
Small tree, 8 ft. Fruit orange.

4 388 Tournefortia syringifolia Vahl
Clambering shrub. 7 ft.

4 389 ~~Cnemidia spinosa Jacq.~~ Guettarda odorata (Jacq.) Lam.
Tree 20 ft. Flrs. salmon-colored.

June 29, 1945. Punta del Cabo, near Camya. Show thickets.

5 390 Carriposurea ~~pordanthe Standl.~~ elliptica (Sw.) Pair.
Tree 40 ft.

2 391 Anemopaegma orbiculatum (Jacq.) DC.
Vine. Flrs. cream on tube, white lobes.

7 392 Psychotria patens Swartz
Shrub 4 ft. Flrs. tiny, white. Shade.

3 393 Elachyptera floribunda (Benth.) A.C. Smith
Vine climbing high in trees. In bud only.

5 394 Calea prunifolia HBK.
Shrub to 4 ft. Flrs. yellow. Open thicket.

5 395 Bunchosia cornifolia HBK
Shrub or small tree to 10 ft. Fruits reddish-orange.

6 396 Pouteria campechiana (HBK.) Baehni
Tree to 30 ft. Fruit orange when ripe. Taste like Annona.
About 3/4 in. long by 1 in. wide. Milky juice in stem.

4 397 Chiococca alba (L.) Hitchc.
Woody vine. Flrs. white turning cream in shade; pinkish in open sun.

7 398 Rauvolfia corymbosa HBK.
Tree 12 ft. Flrs. white, 6 parted, fragrant.

June 30, 1945. Area 11 b. Open scrub.

8 399

On rocks of running stream

4 400

Steep clay bank, shaded; above running stream.

3 401

Shaded bank of running stream.

2 402 pr Philodendron ~~grandifolius Krause~~ harlowii Sm & Std
402 pr " erdanhnii Sm & Std
Common vine in palm scrub, climbing.

4 403 Miconia ~~sp~~ insularis Gleason
Shrub 12 ft. Flrs. white, fragrant.

7 404 Cestrum ~~paranaense Hand-M.~~ latifolium Lam.
Small tree or shrub. Flrs. white. 10 ft. high.

7 405 Tetrapteris ~~glabrifolia (Griseb) Small~~ macrocarpa Sm & Std
Vine climbing high. Roadside. Flrs. first yellow, turning orange-red. Juice not milky.

June 30, 1945. Bluffs at mouth of Rio Mauno.

4 406.

Shaded rock outcrop.

3 407 Psychotria undata Jacq.
Shrub, 4 ft. Shade of forest. Flrs. white.

July 2, 1945. Roadside near South Beach.

5 408 Dioclea megacarpa Rolfe
Coarse woody vine in thickets. Flrs. dark purple.

July 2, 1945. Rocky bluff at South Beach.

3 409 Cipura paludosa Aubl.
Growing with grasses in open seepage area. Flrs. white.

July 2, 1945. Naval Cove region.

4 410 Simaba Cedron Planch.
Tree 15-20 ft. Naked except for tuft of leaves crowning trunk and branched in plor. at apex. Fruits ripen brown puberscent, one-seeded.

July 3, 1945 Vicinity of Canyon Road.

3 411 Ilex guayennensis (Aubl.) Kuntze
Tree 30 ft. Flrs. white.

2 412
Dry slope, in scrub.

4 413
as no. 412.

2 414
On rocks, shaded stream bank.

7 415
On boulders of stream. Washed by high water after rains.

6 416 Swartzia darienensis Pittier
Tree 20 ft. Shaded stream-bank.

4 417 Geophila ~~herbacea (L.) Schum.~~ repens (L.) I.M. Johnston.
Herb. creeping vine, like Epigaea. Flrs. white, very caducous.
Forming mat on soil which is flooded by stream during high water.

2 418 Andira inermis H.B.K.
Tree 20 ft. Shaded stream bank.

4 419
Epiphytic fern on tree-trunks. Shade of stream canyon

3 420

On boulders of shaded stream.

4 421

On boulders of stream, washed by high water.

3 422

Qz no. 421.

3 423

Shaded stream-bank.

3 424 Aristolochia Chapmaniana Handl.
Vine climbing on Bactris thickets.

4 425 Swartzia dariensis Pittier
Tree along roadside. 20 ft.

July 4, 1945. Bald Hill.

2 426 Habenaria pauciflora (Lindl.) Rchb. f.
Terrestial orchid. Flrs. cream colored, rare. Swollen underground stem.

1 427 Miconia minutiflora (H. + B.) DC.
Shrub 8 ft. Thickets bordering Bald Hill. Flrs. white.

4 428 Clidemia rubra (Aubl.) Mart.
Shrub 3 ft. Edges of Bald Hill. Fruits hairy, purple, fleshy

4 429 Cyperus flavus (Vahl) Boeckl.
On Bald Hill. Underground rhizome.

July 6, 1945. Playa Grande.

2 430 Caesalpinia Bonduc (L.) Roxb.
Scrambling vine, beach thickets. Last season's fruit.

4 431 Laguncularia racemosa (L.) Gaertn.
Fleshy leaved shrub. Beach thickets.

1 432 Hippomane Mancinella L.
Beach thickets. Milky juice.

4 433 Dalbergia Brownei (Jacq.) Urban
Beach thickets.

4 434 Uniola Pittieri Hack.
Sand binder, fruit assoc. above high tide.

3 435 Fimbristylis spadicea (L.) Vahl
Moist, sandy estuary edge. Mouth Rio Mesino.

4 436 ~~Chorretia spinosa Jacq.~~ Guettarda odorata (Jacq.) Lam.
Shrub. 8 ft. Flrs. salmon. Mouth Rio Mesino.

July 13, 1945. Bluffs of East Harbor

3 437 Maranta arundinacea L.
Flrs. white.

1 438 Brassavola nodosa (L.) Lindl.
Common orchid of cliffs over beach. Flrs. white.

3 439 Panicum molle Sw.
Thin soil over rock.

2 440
as 439.

2 441 Polygala brizoides H. Hil.
as 439. Flrs. light rose.

3 442
as 439.

3 443 Phyllanthus caroliniensis Walt.
as 439.

2 444 Marsypianthes chamaedrys (Vahl) Kuntze
as 439. Flrs. blue.

2 445 Polygala longicaulis HBK.
as 439. Flrs. red.

3 446 Cordia panamensis Riley
Tree 20 ft.

3 447 Psychotria ~~longicollis Benth.~~ horizontalis Sw.
Shrub 4 ft. Lvs. lustrous.

4 448 Casearia ~~nitida~~ (L.) Jacq. ~~Jacq.~~ barquitana var. laevis (Standl.) Jm gt
Tree 15 ft.

5 449 Cyperus diffusus Vahl
Thin soil over rock.

5 450 Cyperus tenerrimus Presl
as 449.

5 451 Panicum fasciculata Swartz
as 449.

4 452 Borreria ocymoides (Burm.) DC.
as 449. Flrs. white.

4 453 Spigelia Anthelmia L.
as 449. Flrs. lt. pink.

4 454 Setaria tenax (L. Rich) Desv.
as 449.

5 455 Luehea candida (DC.) Mart.
Tree. 35 ft. Flrs. lt. yellow.

July 14, 1945. East Harbor bluffs.

4 456

Rock crevices in shaded canyon.

4 457 Mycophycean?
~~Mosses~~ on decayed log. Shade

2 458

Climbing fern on shaded trunk.

1 459 ~~Not rec'd.~~ Rotala mexicana C + S.
Aquatic in pool of rock pot-hole.

2 460 Eleocharis interstincta (Vahl) R + L
In water of pool or rock pot hole.

3 461. Blepharodon mucronolatum Decne.
Vine. Milky juice. Perianth greenish-white.

1 462 Caesalpinia eriostachya Benth.
Tree to 35 ft. Last season's fruit.

2 463 Lecheа candida (N.) Mart.
Petals yellow. Tree 40 ft.

July 14, 1945. Goat farm.

2 464 Sorghum Halepense (L.) Pers.
Perhaps introduced.

1 465 Echinochloa crus-pavonis (H.B.K.) Schult.
as 464.

2 466 Echinochloa crus-galli (L.) Beauv. ~~dispanpenate~~
as 464.

1 467 Erigeron spathulatus Vahl ~~strigosus~~ (Walt.) B.S.P.
Introduced. Fls. white.

July 15, 1945. Rocks of South Beach.

2 468 Brassavola nodosa (L.) Lindl.
Flowers white. Calyx greenish-white. Very fragrant at night.

1 469
Bracket fungous. Varnished chestnut above. White beneath. Old log.

July 15, 1945. Rio Mato Puerco.

3 470 Echinochloa colonum (L.) Link
Cleared ground of roadside.

2 471 Laguncularia racemosa (L.) Gaertn.
Beach, mouth of Mato Puerco.

3 472 Cassipourea ~~prodantha Hand.~~ elliptica (Sw.) Poir.
Tree 30 ft., as no. 471.

3 473 Epiphytic on bases of Coconut palms. as no 471.

2 474 Citrus aurantium L.
Sour orange. Mouth of Mato Puerco. Trees 20 ft.

5 475 Psychotria undata Jacq.
Bush 5 ft. Shade of forest. Flrs. white.

1 476 Ipomoea ~~tiil (L.) Robb~~ hederacea (L.) Jacq.
Cleard ground, roadside. Near Goat Farm.

July 17, 1945. Bald Hill.

1 477 ~~Sp~~ Waltheria americana L.
Herb. 3 ft. Flrs. yellow. Weed.

4 478 Habenaria pauciflora (Lindl.) Rchb f.
Flrs. cream-white. Tuberous root. Among grasses in open.

1 479 Hyptis lantanifolia Poir.
Mint. Flrs. white. In grass of Bald Hill.

1 480 Crotalaria pilosa Mill.
Legume? Flr. yellow. In grass of Bald Hill.

2 481 Bulbostylis junciformis (H+B.K.) Lindm.
In grass clumps of Bald Hill.

4 482 Psychotria patens Swartz
Shrub or small tree to 10 ft. Flrs. greenish.

~~483~~

July 17, 1945. Area 11a. N. end of island.

3 483 Costus Friedrichsenii Peters
Flrs. pink with red stripes. Plants to 10 ft. In open.

4 484 Chiococca alba (L.) Hitchc.
Clambering shrub. Young pt. Flrs. pinkish or white. Funnelform.

4 485 Cydista aequinoctialis (L.) Miers
Bignon. vine. Flrs. white with pink stripes in throat.

July 18, 1945. Valley below main camp.

3 486 Xanthosoma pilosum Koch
Herb. Flr. white spathe, flushed pink at base.

2 487 Moss on shaded log.

6 488 Guarea culebrana a. DC.
Tree 40 ft. Leaves large, compound. Flrs. pinkish-white.

2 489 Epiphyte. Shaded tree trunk.

3 490 Under shade of Gustavia & Bactris.

3 491 as 490.

2 492 as 490.

7 493 Tussacia Friedrichsthaliana Hanst.
On thin soil of shaded rocks. Flr. orange.

5 494 as 490. . . . .

3 495 Gustavia superba (H.B.K.) Berg
Tree to 35 ft. Fruit green, flesh orange. Seeds dark brown.

July 22, 1945. Vicinity of Naval Station.

5 496 Miconia laevigata Naud.
Shrub. 4 ft. Flrs. pinkish. Shaded ravine.

5 497 Tabicea villosa R. & S.
Vine. Flrs. white. Shaded ravine.

3 498 Banara guianensis Aubl.
Clambering vine or bush. 10 ft.

2 499 Cuphea elliptica Koehne
Annual, Flrs. purple. Weed at Naval Station.

5 500 Melampodium divaricatum (Rich.) DC.
Flrs. yellow.

4 501 Tournefortia syringifolia Vahl
Clambering vine. Navy wood. Frts. orange.

6 502 Henrietta succos. (Aubl.) DC.
Bush 12 ft. Navy Road.

... July 23, 1945. Area IIb.

3 503 Marsdenia macrophylla (H&B.) Fourn.
Vine. Flrs. glossy red. Copious milky juice. Open scrub.

5 504 Melothria trilobata Cogn.
Vine. Flrs. yellow. Corolla reflexed. Fruits greenish-white.

4 505. Swartzia darienensis Pittier
Tree 25 ft. Shaded canyon. Flrs. yellow.

2 506
On stones washed by high water of creek. Shaded.

7 507 Renealmia aromatica (Aubl.) Griseb.
Leafy stems to 6 ft. Flowering stems to 3 ft. Corolla yellow, peduncle red also calyx.

4 508
Shaded ravine.

3 509
Shaded ravine.

4 510 Bactris balanoides (Oerst.) Wendl.
Common black palm. Frts. purplish.

July 23, 1945.

5 511 Dyerium sagittatum (Aubl.) Beauv.
Up to 15 ft. high. Spreads by sharp pointed rhizomes.
In flor. 2 ft. long. Usually with Hibiscus tiliaceus.
Near Main Camp.

4 512 Acotea rubrinervis Mez
Tree 25 ft. Area 3a. Near South Beach.

4 513 Ilex guayennensis (Aubl.) Kuntze
Tree 15 ft. Flrs. white. as 512.

3 514 Casasporea ~~podantha Standl~~ elliptica (Sw.) Poir.
Shrub 10 ft. Fruits open with 4 reflexed valves. White within.
as 512.

4 515 Eugenia Forsteranoides Berg
Shrub. 5 ft. Ripe fruits purple. as 512.

2 516 Psychotria ~~costaricensis Jacq~~ fruticetorum Standl.
Shrub 2 ft. as 512.

3 517 Psychotria undata Jacq.
Shrub 4 ft. as 512. Flrs. white.

4 518 Eugenia organoides Berg
Tree 20 ft. Flrs. white. South Beach.

4 519 ~~Chomelia spinosa Jacq~~. Guettarda odorata (Jacq.) Lam.
Shrub 10 ft. Flrs. salmon. South Beach.

2 520 Stigmaphyllon ellipticum (H.B.K.) Juss.
Vine. Bluff near Main Beach. Flrs. yellow.

July 25, 1945. Bluffs near South Beach.

4 521 Elaeodendron ~~thompsonii n. sp.~~ x glocarpum (Vent) DC
Tree 20 ft. Flrs. greenish-white. New leaves. Sand beach.

2 522 Elaeodendron ~~Thompsonii n. sp.~~ x glocarpum (Vent.) DC
Tree 25 ft. Frts. green. Sandy beach.

3 523 Elachyptera floribunda (Benth.) A. C. Smith
Vine. Beach thicket.

5 524 Terminalia catappa L.
Tree 10 ft. Flrs. white. Frt. green. Sandy beach.

3 525 Rourea glabra H.B.K.
Tree 15 ft. Frt. reddish. Seeds black, protruding from fruit.
Sandy beach.

3 526
Hanging of limbs on bluffs. Grayish green.

2 527 Polygala longicaulis H.B.K.
Flrs. purple. Grassy slopes on bluffs.

2 528
Grassy slopes on bluffs.

2 529 Buchnera pusilla H.B.K.
Flrs. purplish. Grassy slopes on bluffs.

2 530 Borreria sp. parviflora Meyer
Flrs. white. Grassy slopes on bluffs.

July 25, 1945. Near Area 4b. South part of island.

6 531 Nectandra Gentlei ~~=~~ Lundell
Flrs. greenish. Tree 15 ft.

3 532 Tetrapteris ~~glabrofolia (Griseb.) Small~~ macrocarpa Morton.
Vine. Flrs. yellow. Thickets.

2 533 Paspalum decumbens Sw.
Roadside.

2 534 Mandevilla subsagittatum (R. & P.) Woods.
Vine. Milky juice. Flrs. mustard yellow.

Bald Hill. July 26, 1945.

3 535 Curculigo scorzonerifolia (Lam.) Baker
Flrs. yellowish-pink. Between grass tufts.

July 29, 1945. Along East Road, near Merino River.

1 536 Fimbristylis miliacea (L.) Vahl
In gravel of road.

4 537 Macrocnemum glebrescens (Benth.) Wedd
Tree 20 ft. Flrs. pink. One branching flowering, probably unreasonably. Last reasons fruits.

4 538 Swartzia dariensis Pittier
Tree 35 ft. Flrs. yellow.

July 29, 1945. Shaded side Merino River.

2 539 Xanthosoma pilosum Koch
On thin soil of large rocks. Spathe white with purple at base within.

4 540 Steep soil bank of stream.

1 541 Moist boulders in shade.

3 542 Haistema exiguum Morton
Flrs. white with yellowish flush at base of tube. On moist shaded boulders.

4 543 Climbing on mossy trunks of trees.

3 544 Gonzalagunia panamensis (Cav.) Schum.
Flrs. white. Shrub 2 ft. Wet shaded stream-bank.

5 545 Ardisia compressa H.B.K.
Shrub to 8 ft. Flrs. white. Corolla reflexed.

July 30, 1945. Rock skerries near Main Beach.

3 546 Odontocarya ~~paupa (Spruce) Hitch.~~ nitida Riley
Trailing vine. Flrs. greenish. Juice not milky.

3 547 Cortus villosissimus Jacq.
Flrs. yellow. Stems somewhat helicoid. 4 ft.

3 549 Agave panamana Trel.
Flr. stalks to 8 ft. At this season the stalks old but with small rosettes along stalk.

~~550~~

~~Bus~~

July 30, 1945. Bluffs along coast. Main Beach.

4 550 Coccoloba ~~nesophila Lop.~~ wattii 2 m. Jtn.
Bush. 4 ft. Frt. green.

4 551 Amaioua corymbosa H.B.K.
Tree 20 ft.

July 30, 1945. Cleared ground around Camp.

2 552 Tridax procumbens L.
Flrs. yellow. Stems ascending.

2 553 Mimosa pudica L.
Flrs. pink.

2 554 Euphorbia hirta L.

4 555 Commelina ~~diffusa Burm. f.~~ elegans H.B.K.
Procumbent, rooting at nodes. Flrs. blue

July 31, 1945. Area 8d. N. central part of island.

4 556 Psychotria ~~longicollis Benth.~~ horizontalis Sw.
Shrub 3 ft. Flrs. green. Roadside.

4 557 ~~Lantana~~ Palicourea guianensis Aubl.
Shrub 4 ft. Corolla tube yellow. Calyx & peduncle pink.

2 558 Monstera pertusa (L.) de Vriese
Sterile. Shade of forest. Climbing.

Aug. 2, 1945. Camp Area.

5 559 Panicum pilosum Sw.
Near creek at Enlisted Mens beach in sand.

4 560 Crestidium rufescens Blanch.
Open thicket. Flrs. greenish-yellow.

Aug. 3, 1945. Camp Area

5 561 Clibadium appressipilum Blake
Shrub 7 ft. Flrs. white. Open places.

4 562 Elachyptera floribunda (Benth.) A. C. Smith
Vine. Flrs. greenish white. Shade.

3 563 Alibertia edulis (L.) Rich.
Shrub. Flrs. white, fragrant. Open places, 4 ft.

Aug. 5, 1945. Canyon Road.

2 564 Stemmadenia arbicularis (H.B.K.) Blume
Vine. Leaves fleshy. Open places.

7 565 Nectandra Gentlei Lundell
Tree. 15 ft. Flrs. white. Roadside.

1 566 Mandevilla subsagittatum (R. & S.) Woods.
Vine. Flrs. yellow, flushed red near throat. Milky juice.

6 567 Croostegia speciosa Nand.
Shrub. 8 ft. Flrs. lavender. Corolla replyed.

Aug. 4, 1945. Bluffs near South Beach.

2 568 Lavauxia pulchella Planch.
Flrs. lavender.

3 569 Buchnera pusilla H.B.K.
Flrs. lavender.

2 570 Cynura paludosa Aubl.
Flrs. white. Seeds lt. brown.

1 571 Pectis elongata H.B.K.
Flrs. orange.

2 572 Borreria ~~sp.~~ parviflora Meyer
Flrs. white.

Aug. 4, 1945. Along South Road.

5 573. Viscoma ~~sp.~~ insularis Gleason
Shrub. Flrs. white.

2 574 Tussacia Friedrichsthaliana Hanst.
Damp rocks in shade. Flrs. orange.

1 575 Prestonia portobellensis (Beurl.) Woods.
Vine. Flrs. lt. lavender. Corona yellow. Juice not milky.

Aug. 6, 1945. Bald Hill.

1 576 Curculigo scorzoneri folia (Lam.) Baker
Flr. yellow. Between tufts of grass.

2 577 Euphorbia ~~hyss~~ hyssopifolia L
Between tufts of grass.

1 578 Trachypogon secundus (Presl) Scribn.
Grass which makes up dominant cover on Bald Hill.
Last season's fruit.

Aug. 6, 1945. East Harbor Bluffs.

6 579 Jussiaea erecta L.
Herb. 6 ft. Flrs. yellow. Open places.

1 580 Pectis elongata H.B.K.
Flrs. orange. Grassy bluffs.

1 581 Odontocarya ~~pauciflora (Griseb.) Hitchc~~ nitida Riley
Vine. Flrs. greenish-yellow. Grassy bluffs.

2 582

Grassy bluffs.

2 583 Polygala brizoides H. Hil.
as 582. Flrs. lavender.

2 584 Mitracarpus ~~hirtus (L.)~~ DC brevifloras Gray
as 582. Flrs. white.

2 585 Habenaria pauciflora (Lindl.) Rchb. f.
as 582. Flrs. cream.

2 586 Maranta arundinacea L.
as 582. Flrs. white.

4 587 Sauvagesia tenella Lam.
as 582. Flrs. lt. lavender.

4 588 Casearia ~~hirsuta (L.) Jacq.~~ tamaulipana var. laevis (Standl.) Jones.
Tree 25 ft.

Aug. 7, 1945. Camp Area.

3 589 Desmodium triflorum (L.) DC.
Procumbent on cleared ground. Flrs. red.

Aug. 8, 1945. Woods along South Road.

3 590 Moss on shaded stone.

5 591 Trichomanes
Shaded ground. Fronds root at tips and send up new plants.

Aug. 8, 1945. Navy Station.

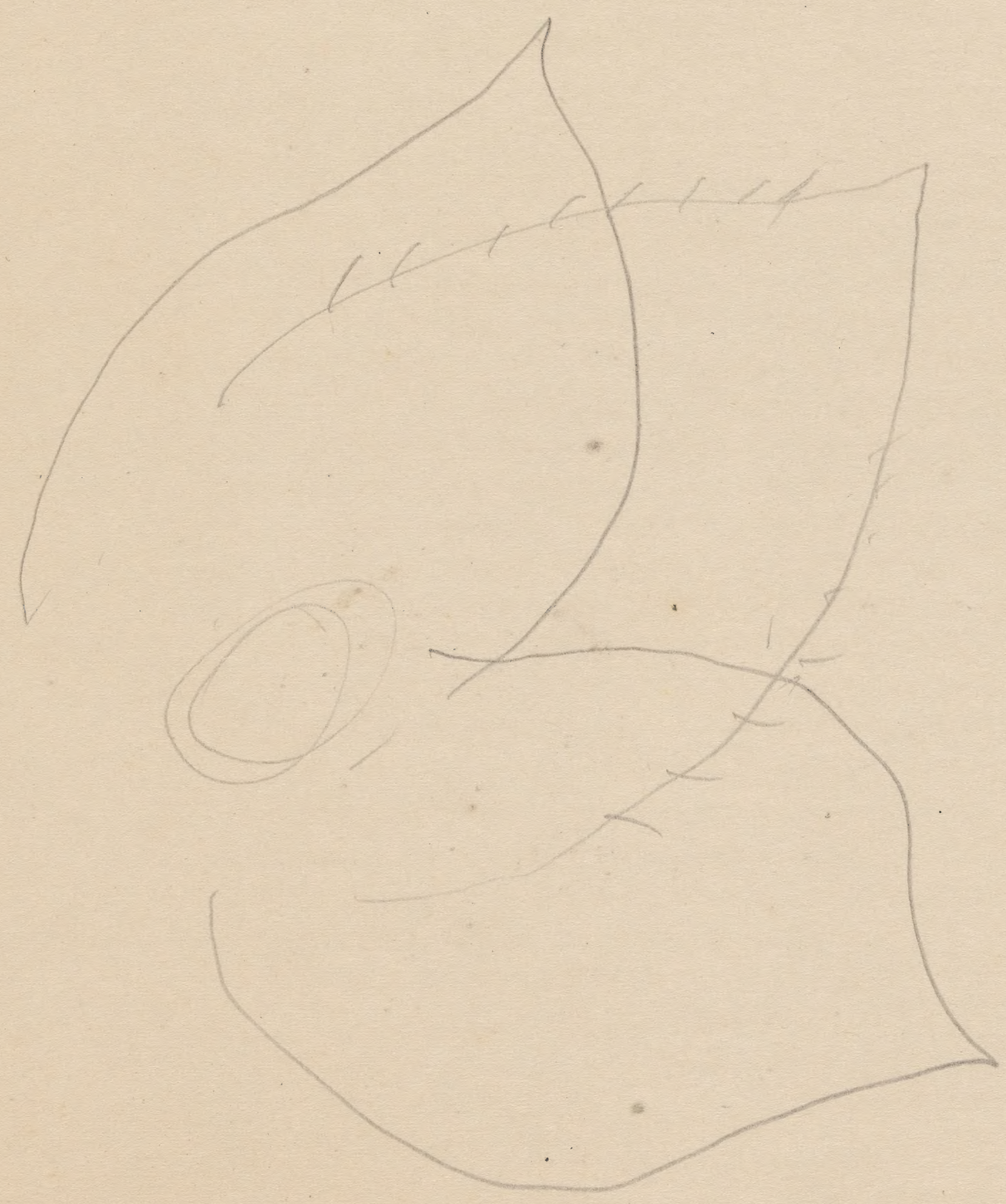
1 592 Desmodium canum Gmel.
Flrs. greenish. Open places.

2 593 Setaria geniculata (Lam.) Beauv.
Open places.

4 594 Melampodium divaricatum (Rich.) DC.
Flrs. yellow. Stem dichotomous.

4 595 Eleutheranthera ruderalis (Sw.) Sch. Bip.
Flrs. yellow. Very inconspicuous. Stems ascending.

Aug. 10, 1945.

3 596 Spondias Mombin L.
Tree 50 ft. Bark furrowed. Fruits yellow when ripe. Flesh tart, edible. Beach, north of East Harbor.

3 597 ~~Musaceae~~? Heliconia latispatha Benth.
Herb 3 ft. Bracts red. Stream-side. Near beach north of East Harbor.